

Amendments to the Claims

This listing of claims will replace all prior listings of claims in the application.

Listing of Claims

1. (Currently amended) A drilling tool for machine tools, having a drill bit body ~~(10)~~ and at least two inserts ~~(20, 22)~~ which are arranged at a radial distance from one another in an insert seat ~~(16, 18)~~ seats of the drill bit body ~~(10)~~ in ~~the~~ a region of ~~a~~ respective chip flute ~~(12, 14)~~ flutes, the inserts project with their front-end main cutting edges ~~(30, 34)~~ axially beyond the drill bit body ~~(10)~~ and radially overlap one another in their active regions, ~~the~~ a radially outer insert ~~(22)~~, ~~with it~~ sof said at least two inserts has an outer insert corner ~~(36)~~ and ~~it~~ an adjoining secondary cutting edge ~~(38)~~, projecting beyond the drill bit body ~~(10)~~, and the secondary cutting edge ~~(38)~~, starting from the insert corner ~~(36)~~, being inclined at a defined setting angle (α_a) in its longitudinal extent in the direction of the drill bit body, ~~characterized in that~~ wherein the front-end main cutting edge ~~(34)~~ of the outer insert ~~(22)~~ is subdivided in its longitudinal extent into a radially inner working section ~~(50)~~ and a peeling section ~~(52)~~ adjoining said working section ~~(50)~~ on the outside and extending up to the outer insert corner ~~(36)~~, said working and peeling sections ~~(50, 52)~~ enclosing an angle of 95° to 110° with one another.

2. (Currently amended) The drilling tool as claimed in claim 1, ~~characterized in that~~ wherein the working section ~~(50)~~ of the main cutting edge ~~(34)~~, toward the peeling section ~~(52)~~, is set at a positive setting angle of 2° to 10° relative to ~~the~~ an end face of the drill bit body.

3. (Currently amended) The drilling tool as claimed in claim 1, ~~characterized in that~~ wherein the peeling section ~~(52)~~ of the main cutting edge ~~(34)~~, toward the outer insert corner,

is set at a positive setting angle of 72° to 87° relative to ~~the~~an end face of the drill bit body ~~(10)~~.

4. (Currently amended) The drilling tool as claimed in claim 1, ~~characterized in that~~wherein a transition point ~~(54)~~ between the working section ~~(50)~~ and the peeling section ~~(52)~~ of the main cutting edge ~~(34)~~ is rounded off convexly.

5. (Currently amended) The drilling tool as claimed in claim 1, ~~characterized in that~~wherein in the region of the outer insert corner ~~(36)~~, the peeling section ~~(52)~~ of the main cutting edge ~~(34)~~ and the adjacent secondary cutting edge ~~(38)~~ enclose an angle of 160° to 175° with one another.

6. (Currently amended) The drilling tool as claimed in claim 1, ~~characterized in that~~wherein a central section ~~(58)~~ extending up to ~~the~~an inner insert corner ~~(56)~~ adjoins the ~~rectilinear~~ working section ~~(50)~~ of the front-end main cutting edge ~~(34)~~ radially on the inside, ~~this~~the central section ~~(58)~~ enclosing a sweepback angle of 160° to 175° with the working section ~~(50)~~ and being set at a negative setting angle of 3° to 18° relative to the end face of the drill bit body ~~(10)~~.

7. (Currently amended) The solid drill bit as claimed in claim 6, ~~characterized in that~~wherein the active region of the central section ~~(58)~~ of the front-end main cutting edge ~~(34)~~ of the outer insert ~~(22)~~ is overlapped by the front-end main cutting edge ~~(30)~~ of the inner insert ~~(20)~~ and is rendered ineffective.

8. (Currently amended) The solid drill as claimed in claim 1, ~~characterized in that~~wherein the inserts ~~(20, 22)~~ are ~~designed as~~comprise indexable inserts having four main cutting edges ~~(30, 34)~~ of the same length.

9. (Currently amended) An outer insert for a drilling tool which can be used in a machine tool, having at least one main cutting edge ~~(30, 34)~~, extending between a first and a

second insert corner ~~(36, 56)~~, and an adjacent secondary cutting edge ~~(38)~~ adjoining the first insert corner ~~(36)~~, ~~characterized in that~~ wherein the main cutting edge ~~(30, 34)~~ is subdivided in its longitudinal extent into a rectilinear working section ~~(50)~~ and an adjoining rectilinear peeling section ~~(52)~~ extending up to the first insert corner ~~(36)~~, said sections ~~(50, 52)~~ enclosing an angle of 95° to 110° with one another.

10. (Currently amended) The outer insert as claimed in claim 9, ~~characterized in that~~ wherein a transition point between the working section ~~(50)~~ and the peeling section ~~(52)~~ of the main cutting edge ~~(30, 34)~~ is rounded off convexly.

11. (Currently amended) The outer insert as claimed in claim 9 ~~10~~, ~~characterized in that~~ wherein in ~~the~~ a region of the first insert corner ~~(36)~~, the peeling section ~~(52)~~ of the main cutting edge ~~(30, 34)~~ and the adjacent secondary cutting edge ~~(38)~~ enclose an angle of 160° to 175° with one another.

12. (Currently amended) The outer insert as claimed in claim 9, ~~characterized in that~~ wherein a central section ~~(58)~~ extending up to the second insert corner ~~(56)~~ adjoins the rectilinear working section ~~(50)~~ of the main cutting edge ~~(30, 34)~~, ~~this~~ the central section ~~(58)~~ enclosing a sweepback angle of 160° to 175° with the working section ~~(50)~~.

13. (Currently amended) The outer insert as claimed in claim 9 ~~12~~, ~~characterized in that it~~ wherein the outer insert is comprises ~~designed as an~~ indexable insert ~~(20, 22)~~ having ~~four~~ third and fourth insert corners ~~(36)~~ and four identical ones of said main cutting edges ~~(30, 34)~~ which are offset from one another by 90° and of which in each case the main cutting edge ~~(30, 34)~~ adjoining ~~at~~ the first insert corner ~~(36)~~ at the same time performs the function of the secondary cutting edge ~~(38)~~ with regard to the adjacent main cutting edge ~~(30, 34)~~ via the relevant insert corner ~~(36)~~.

14. (New) The outer insert of claim 9, wherein the peeling section toward the outer insert corner is set at a positive setting angle of 72 degrees to 87 degrees relative an end face when the outer insert is secured to a drill bit body.

15. (New) A drilling tool for machine tools comprising:
a drill bit body having at least two insert seats and chip flutes opening axially at an end face thereof;

an inner insert mounted in one of said insert seats and having a front-end main cutting edge projecting axially beyond the end face of the drill bit body; and

a radially outer insert mounted in another one of said insert seats and having a front-end main cutting edge projecting axially beyond the end face of the drill bit body and an adjoining secondary cutting edge projecting radially outwardly beyond the drill bit body, the front-end main cutting edge and the secondary cutting edge meeting at an outer insert corner of said outer insert, the secondary cutting edge starting from the insert corner being inclined at a defined setting angle (α_a) along the length thereof, and to permit burr-free through drilling the front-end main cutting edge of the outer insert is subdivided along the length thereof into a radially inner working section and a peeling section, the peeling section adjoining the working section and extending radially outwardly to the outer insert corner.

16. (New) The drilling tool of claim 15, wherein the working and peeling sections enclose an angle of 95 degrees to 110 degrees.

17. (New) The drilling tool of claim 16, wherein the working section of the main cutting edge toward the peeling section is set at a positive setting angle of 2 degrees to 10 degrees relative to the end face of the drill bit body.

18. (New) The drilling tool of claim 16, herein the peeling section toward the outer insert corner is set at a positive setting angle of 72 degrees to 87 degrees relative to the end face of the drill bit body.

19. (New) The drilling tool of claim 16, wherein a transition point between the working section and the peeling section of the outer insert is rounded off convexly.

20. (New) The drilling tool of claim 16, the outer insert including a central section adjoining the working section and extending radially inwardly to an inner insert corner, the central section enclosing a sweepback angle of 160 degrees to 175 degrees with the working section and being set at a negative setting angle of 3 degrees to 18 degrees relative to the end face of the drill bit body.